



Attorney's Docket No.: 12023-003001

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Karun Philip and Harpal

Art Unit: 3624

Maini

Examiner: Narayanswamy Subramanian

Serial No.: 09/693,568

Filed ·

: October 20, 2000

Title

: SEGREGATION AND MANAGEMENT OF FINANCIAL ASSETS BY

RULES

## MAIL STOP AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

### AMENDMENT IN REPLY TO ACTION OF JANUARY 7, 2005

Please amend the above-identified application as follows:

#### CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Melissa Kruggel

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# Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

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# **Listing of Claims**:

(currently amended) A system for managing financial assets comprising: 1.

a computer system to receive information regarding financial assets;

a storage system coupled to the computer system, the mass storage system storing the information, and

a computer program to execute on the computer system, comprising computer instructions to cause the computer system to:

segregate the financial assets into a first category and a second category according to a first set of abstraction rules that define a hierarchy of the first and second categories of financial assets; and

segregate the financial assets contained within a first one of each of the first and second categories into asset classes according to a second set of abstraction rules that define a hierarchy of the asset classes.

- 2. (original) The system of claim 1 wherein the financial assets comprise accounts receivable.
- (original) The system of claim 2 wherein the computer system receives information 3. regarding transactions related to accounts receivable in real-time.
- (original) The system of claim 1 further comprising: 4.

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a computer program comprising instructions to cause the computer system to reconcile a transaction related to an financial asset.

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5. (original) The system of claim 4 further comprising:
a computer program comprising instructions to cause the computer system to manage an exception related to the transaction.

- 6. (original) The system of claim 1 further comprising:
  a scanner to scan a document related to a financial asset to make a scanned image, and to store
  the scanned image on the mass storage system.
- 7. (original) The system of claim 6 wherein scanned images are displayed to an authorized user upon request
- (currently amended) A computer-based method of managing financial assets comprising: providing a pool of financial assets stored electronically on a computer;

electronically abstracting information regarding a subgroup of the financial assets within the pool according to at least a first abstraction rule stored electronically on a computer, the first abstraction rule defining the subgroup according to user-defined specifications for purchasing financial assets;

summarizing using a computer the information provided by operation of the first abstraction rule;

providing information electronically regarding individual financial assets within the subgroup of the pool according to at least a second <u>abstraction</u> rule stored electronically on a computer, the second abstraction rule defining at least one of the individual financial assets according to user-defined specifications for purchasing financial assets.

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(original) The method of claim 8 in which the financial assets comprise accounts 9. receivable.

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- (original) The method of claim 8 wherein abstracting further comprises: 10. abstracting information using a hierarchy of abstraction rules to define hierarchical subsets of the pool of financial assets.
- (currently amended) The method of claim [[10]] 1 further comprising: 11. representing the hierarchy of abstraction rules the first and second categories of financial assets as a tree structure defined by the hierarchy of abstraction rules.
- (original) The method of claim 8 further comprising: 12. producing a report concerning individual financial assets within the subgroup of the pool according to the at least first abstraction rule with producing being constrained by the at least second rule.
- (original) The method of claim 12 further comprising: 13. requesting the reports based on the at least first rule through a client system that is coupled to a server system over the Internet.
- (original) The method of claim 12 further comprising: 14. scanning a document related to a financial asset to produce a scanned image, storing the scanned image and displaying the scanned image to an authorized user, wherein the authorization is defined by the at least second rule.
- (original) The method of claim 12 further comprising: 15. requesting the report based on the at least first rule by through a client system that is coupled to a server system over the Internet.

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(original) The method of claim 12 in which the financial assets comprise short term 16. accounts receivable.

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(currently amended) A computer program product, stored on a computer readable 17. medium, for managing accounts receivable, the program comprising instructions for causing a computer to:

receive and store information related to financial assets;

define a pool of financial assets in accordance with at least a first asset pool definition abstraction rule that defines a hierarchy of nodes, with at least some of the nodes corresponding to financial assets in the pool of financial assets;

abstract information regarding a subgroup of the financial assets within the pool according to at least a second abstraction rule, the second abstraction rule defining the subgroup according to user-defined specifications for purchasing financial assets;

summarize the information provide by operation of the first abstraction rule;

provide information regarding financial assets within the subgroup of the pool according to at least a first access rule a third abstraction rule stored electronically on a computer, the third abstraction rule defining at least one of the financial assets according to user-defined specifications for purchasing financial assets.

- (original) The computer program product of claim 17 in which the financial assets 18. comprise accounts receivable.
- (original) The computer program product of claim 17 further comprising in which the 19. information is received in real time.

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20. (original) The computer program product of claim 17 further comprising instructions for causing a computer to abstract information using a hierarchy of abstraction rules to define hierarchical subsets of the pool of financial assets.

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- 21. (original) The computer program product of claim 20 further comprising instructions for causing a computer to represent the hierarchy of abstraction rules as a tree structure defined by the hierarchy of abstraction rules.
- 22. (original) The computer program product of claim 17 further comprising instructions for causing a computer to produce a report concerning individual financial assets within the subgroup of the pool according to the at least first abstraction rule with producing being constrained by the at least second rule.
- 23. (original) The computer program product of claim 22 further comprising instructions for causing a computer to provide a report in response to a request from a user based on the at least first rule through a client system that is coupled to a server system over a network.
- 24. (original) The computer program product of claim 17 further comprising instructions for causing a computer to scan a document related to the financial obligations to produce a scanned image, store the scanned image and display the scanned image to an authorized user, wherein the authorization is defined by the at least second rule.

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REMARKS

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Initially, Applicant thanks the Examiner for the telephonic interview conducted on March 23, 2005. During the interview, Applicant argued the patentable distinctions of Claim 1 over the Field reference as pertaining to the abstraction rules. However, no agreement was reached. The Examiner suggested that Applicant define the abstraction rules more clearly in the claims.

As suggested by the Examiner, Applicant has amended independent claims 1, 8, and 17 to define abstraction rules more clearly. Claim 1 has been amended to recite that the abstraction rules "define a hierarchy of the first and second categories of financial assets" and "define a hierarchy of the asset classes."

Support for these amendments is found in Applicant's specification. For example, as described in Applicant's specification on page 18, lines 30-32, custom tranches of pools of assets may be defined using abstraction rules, which "define a hierarchy of nodes each of which nodes defines a tranche." Abstraction rules provide a flexible framework for defining any type of security. "The rules definition process can define any asset class and pool/tranche structure. Not only can traditional tranches of securities be structured... the tree structure may be used to generate senior-sub..., and cash-collateral structures of any complexity (Applicant's specification on page 20, lines 20-25)."

Applicant's claims are allowable over Field. For example, claim 1 now recites a system to "... segregate the financial assets into a first category and a second category according to a first set of abstraction rules that define a hierarchy of the first and second categories of financial assets; and segregate the financial assets contained within a first one of each of the first and second categories into asset classes according to a second set of abstraction rules that define a hierarchy of the asset classes."

Although Field discloses rules for segregating accounts receivables and creating pools of assets, Field neither discloses nor suggests that the rules define a hierarchy of financial assets or of asset classes.

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Field describes segregating claims into periodic units: "the current claims data is divided into trackable periodic units so as to be able to reconcile advances, collections, interest expense, third party fees and cash settlements between programs 33 and receivable sellers 31" (at Col. 5, lines 58-64). Nowhere does Field describe or suggest that the rules for dividing the claims into trackable periodic units define a hierarchy between the units. Consequently Field does not describe nor suggest to segregate the financial assets into a first category and a second category according to a first set of abstraction rules that define a hierarchy of the first and second categories of financial assets and segregate the financial assets contained within a first one of each of the first and second categories into asset classes according to a second set of abstraction rules that define a hierarchy of the asset classes.

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Claim 11 has been amended to depend on claim 1 and recite "representing the hierarchy of the first and second categories of financial assets as a tree structure." FIG. 6 and accompanying text on pages 20-22 describe an example of a tranche tree structure in which each tranche is directly attached (denoted by a solid line in FIG. 6) to one or more tranches of lower hierarchy that have been derived from that tranche based on at least one abstraction rule.

Field, by contrast, neither discloses nor suggests using a tree structure to represent categories of financial assets. Rather, in FIG. 7 and accompanying text in col. 6, lines 64-67, Field discloses storing financial asset data in tables: "FIG. 7 illustrates the various tables and files of data 45 maintained in files on sentinel system 42." Nowhere does Field mention storing financial asset data in a tree structure.

Claims 8 and 17 have been amended to recite an "abstraction rule defining the subgroup [of financial assets] according to user-defined specifications for purchasing financial assets." Applicant's specification on page 23, lines 9-19, describes defining a group of assets according to user-defined abstraction rules for purchasing those assets:

> The platform supports specification of rules for automatic repurchase of assets by the originator, such as, in the case of retail pharmacy accounts receivable, a claim which is subsequently denied. The platform also supports rules to be changed periodically, so that, for example, an investment bank purchaser may create a purchase rule for a limited class of assets within a pool, and later, as a comfort level has been reached, expand

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that class, or, conversely, restrict it. Different purchasers may set up different purchase rules.

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By using abstraction rules to define subgroups of financial assets, investors may customize the subgroup according to their own specifications for purchasing financial assets.

Field, by contrast, does not disclose defining a subgroup of financial assets according to user-defined specifications for purchasing the financial assets. Col, 12, line 24 – col. 13, line 23, of Field discloses forming pools, referred to as "daily pools," from individual claims and groups of claims. In Field, the claims are grouped into a daily pool based on the billing date of the claim, "All claims in a daily pool share the same date billed (col. 12, line 33)." However, nowhere does Field disclose or suggest that the daily pools are defined according to user-defined specifications for purchasing those assets. Rather, Fields teaches away from user-defined purchasing specifications by setting restrictions on the exposure to credit risks that any pool can take on. In col. 13, lines 7-10, Field describes that for each pool, "software 43 calculates the percentage concentration for any payor and how compliance with the commercial paper program's restrictions is enforced." For example, if Field's system permitted users to define daily pools according to their own specifications for purchasing financial assets, a user could define a daily pool having a credit risk that exceeds a permissible credit risk set forth in the restrictions of a commercial paper program.

Claims 2-7, 9-16, and 18-24 depend on one of claims 1, 8, and 17, and are thus patentable for at least some of the same reasons as the claims on which they depend.

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Applicant asks that all claims be allowed. Enclosed is a \$60.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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